

NewsProof: Verifying News Credibility

The objective is to build a system that cross-references articles with trusted sources. This system will assign credibility scores, helping users assess the reliability of news.



Core Technology Stack



NLP

Hugging Face Transformers (e.g., BERT) for claim extraction and analysis.



Web Scraping

BeautifulSoup or Scrapy for fetching and processing article content.



Backend

Flask/Django for lightweight API and data processing.



Frontend

React or HTML/CSS for a simple user interface.



Key Steps in Implementation

1

Input Processing

Accept user-submitted article URLs or text for analysis.

2

Content Analysis

Use NLP to extract key claims, entities, and sentiment from content.

3

Source Verification

Cross-check claims against trusted databases or web sources.

4

Scoring

Assign a credibility score based on source reliability and consistency.

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NLP and Summarization

Article Summarization

Leverage BART models like distilbartcnn-6-6 for concise summaries.

Entity Extraction

Identify key entities to focus verification efforts effectively.

Similarity Analysis

Use sentence transformers like all-MiniLM-L6-v2 to asses similarity.



Data Sources and APIs

1 Google Fact Check Tools API

Access structured fact-check data for claim validation.

NewsAPI

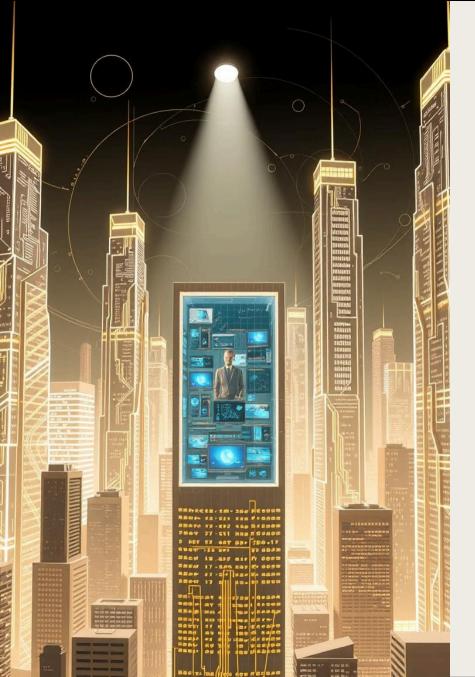
Utilize NewsAPI for accessing a wide range of trusted news sources.

3 Open Source Datasets

Integrate publicly available datasets for enhanced verification.

Scoring and Credibility Assessment

Source Reliability Evaluate the credibility and bias of each source. **Claim Consistency** Assess how well claims align with multiple sources. **Overall Score** 3 Assign a final credibility score to the article.



Key Takeaways

Verification Tool

Build a tool to cross-reference with trusted sources.

Scoring System

Assign credibility scores based on reliability and consistency.

Agile Methodology

Use Agile for rapid development and iterative improvement.